To: Vann, Bradley[Vann.Bradley@epa.gov]
Cc: Maxwell, Patricia[Maxwell.Patricia@epa.gov]
From: Maxwell, Patricia
Sent: Wed 4/22/2015 10:36:33 PM
Subject: IMPORTANT***

Brad,

I should receive your updated version of this document by 10:00 am on Thursday morning, 4-23.

Thank you,

Patricia

X7365

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From: Maxwell, Patricia
Sent: Tuesday, April 21, 2015 4:17 PM
To: Vann, Bradley
Cc: Maxwell, Patricia
Subject: Most recent issue writeup on West Lake (from Maarch 13, 2015)...Please note, this might be a different format than the one due on Thursday)
Importance: High

• **West Lake Landfill**

The site is a 200-acre municipal landfill site consisting of the State-permitted Bridgeton Sanitary Landfill and several older, unregulated landfill areas. Two unregulated areas of the landfill, identified as Operable Unit (OU)-1, became radiologically contaminated in 1973 when leached barium sulfate (a uranium ore processing residue) mixed with soil was used as daily cover in the landfill operation. The remainder of the landfill area at the site is included in OU-2. EPA placed the site on the Superfund National Priorities List (NPL) in 1990.

EPA agreed to several extensions of the public comment period on the proposed plan for this Site and held public meetings on June 22, 2006, September 14, 2006, and March 27, 2008 before issuing the Record of Decision (ROD) in May 2008. The selected remedy is to contain the waste material in place through construction of an engineered landfill cover and implementation of a long-term monitoring and maintenance program. The ROD estimates the cost of the remedy to

be approximately $22 million.

There are critics of EPA's remedy, including those affiliated with the Missouri Coalition for the Environment (Coalition), who want the radiologically-contaminated waste to be excavated and shipped to an off-site location. Concerns expressed by these critics include: the waste poses a current public health risk and that it is unsafe to manage these materials in place; the waste will migrate to the groundwater and the Missouri River; the site is in a floodplain which could affect the integrity of the remedy; and the landfill does not have a liner to isolate the contamination from the environment. Critics also draw comparisons to the nearby North St. Louis County FUSRAP sites, where similar contamination in a very different exposure scenario is being excavated and shipped off-site. The Responsiveness Summary that accompanied the ROD thoroughly addressed these concerns and many others raised by the public.

In an April 2009 letter to the Administrator, the Great Rivers Environmental Law Center (GRELC), on behalf of the Coalition, again raised these concerns and requested the remedy be reevaluated. In response, EPA headquarters had several technical experts review the ROD, and these experts suggested four specific measures to include in the design of the engineered landfill cover. GRELC sent a second letter in December 2009 to Mathy Stanislaus stating that "…the ROD promulgated by the prior administration was ill-advised and mistaken."

After extensive consultation between the Region and HQ, EPA decided to conduct a study that evaluates full-scale excavation of the radiologically-contaminated landfill material with either off-site disposal or on-site disposal in an engineered cell. The private PRPs, with financial contribution from the federal PRP, agreed to perform the supplemental feasibility study (SFS) under the existing administrative order on consent. There are four PRPs for OU1 at this site: Bridgeton Landfill, LLC; Rock Road Industries, Inc.; Cotter Corporation N.S.L. and the Department of Energy. The SFS was completed in December, 2011.

The SFS re-evaluated the ROD remedy to update cost and schedule information and include costs of an enhanced cap. The new estimate of costs for the selected remedy with enhanced the cap is $41.4 million. The SFS report also includes two other estimates: the cost of excavation with off-site disposal, $259 to $415 million; and the cost of excavation with on-site disposal, $137 million.

Region 7 met with the St. Louis Airport Authority on September 7, 2010 to discuss how the negative easement the Airport holds on the landfill would affect the excavation remedies being

considered in the SFS. The easement prevents any "…new or additional depositing or dumping of municipal waste…" and is intended to reduce the risk of bird strikes to aircraft. The Airport opposes both excavation remedies based on the potential for increased bird strikes, and sent EPA a letter to this effect September 20, 2010.

There are two potential Environmental Justice areas near the site: a trailer park approximately one mile southeast of the nearest OU-1 area, and the Spanish Village housing development approximately 1.5 miles south of the nearest OU-1 area. EPA conducted an environmental justice assessment of these areas which uses the most current data and current procedures. The Region will provide targeted outreach to these communities during the upcoming public comment period on the post-SFS decision document.

The estimated costs defined for each alternative in the SFS report exceeded the threshold which triggered review by EPA's National Remedy Review Board (NRRB) in early 2012. The NRRB provided recommendations for additional studies relating to the SFS Report. These include: evaluating additional groundwater sampling to refresh the data; conducting a more detailed study of a partial excavation alternative where only the most-contaminated material is removed; and conducting a more detailed analysis of potential treatment technologies for the radiologically-impacted material (RIM).

In June, 2012, EPA Region 7 tasked the PRPs to conduct these additional studies. EPA Region 7 also conducted vertical gamma scans of monitoring wells at the site in November 2012 and updated gamma scans of the surface of OU-1 in March, 2013. The PRPs have conducted four rounds of additional groundwater sampling in 2013-2014. EPA has tasked the US Geological Survey to help evaluate and interpret the new groundwater data. Once the additional studies and groundwater data interpretation are complete, EPA will release a new proposed plan for an amended remedy and will take public comment on this proposed plan.

The high level of interest in West Lake Landfill has compelled EPA to undertake these additional studies to further demonstrate to the public that the remedy that is eventually implemented at OU-1 is protective of human health and the environment.

The subsurface oxidation event (SSE) in the Bridgeton Sanitary Landfill cell was first discovered in December 2010 and reported to MDNR and the EPA. The SSE began to receive extensive press coverage in late 2012 when odors from the SSE increased and began to generate complaints from local residents and businesses. The Missouri Attorney General's office filed suit

against the landfill owner (Republic Services) on March 27, 2013 alleging violation of a number of Missouri environmental laws. The SSE area is more than 1,000 feet from the nearest area where radiological waste is located.

Republic Services agreed to install the second and final contingent remedy called for under the AG's Order, which is the subsurface isolation barrier between the North Quarry landfill cell of the Bridgeton Sanitary Landfill and Area 1 of OU-1, which contains RIM. Republic's contractors did an initial subsurface gamma survey of the area for the proposed barrier, which lies within part of OU-1 Area 1, in October and November 2013. Early results from this survey identified previously undiscovered RIM at depths of 25 or more feet to the southwest of OU-1 Area 1. Additional core sampling that began in January 2014 will define the extents of the RIM and help Republic select a location for the isolation barrier that does not disturb the RIM.